What Alcohol Does to Your Brain | Dr. Andrew Huberman

https://silosolo.com/727389

Summary

Alcohol is both water soluble and fat soluble, allowing it to pass into all cells and tissues in the body. There are three main types of alcohol: isopropyl, methyl, and ethyl alcohol. Only ethyl alcohol or ethanol is fit for human consumption. When ingested, ethanol is converted into acetylaldehyde, a toxic substance that damages and kills cells. This conversion process involves the molecule NAD and related biochemical pathways. To deal with the toxicity of acetylaldehyde, the body uses the NAD pathway to convert it into acetate, which can be used as fuel. However, acetylaldehyde can build up if the conversion process is not fast enough, causing more damage to cells.

Silo sample questions

- What are the main types of alcohol and which one is fit for human consumption?
- How does alcohol affect cells and tissues in the body?
- What happens to alcohol in the body and why is it considered toxic?
- What is acetylaldehyde and how does the body deal with its toxicity?
- Why is it important for the body to be able to convert ethanol into acetate quickly?

Topics

Types of alcohol
Effects of alcohol on cells and tissues
Conversion of ethanol into acetylaldehyde and acetate
Toxicity of acetylaldehyde
Role of NAD in alcohol metabolism

Key Takeaways

- The main types of alcohol are isopropyl, methyl, and ethyl alcohol. Only ethyl alcohol or ethanol is fit for human consumption.
- Alcohol can pass into all cells and tissues in the body because it is both water soluble and fat soluble.
- When alcohol is ingested, it is converted into acetylaldehyde, which is a toxic substance that damages and kills cells. This conversion process involves the molecule NAD and related biochemical pathways.
- Acetylaldehyde is a poison that is produced when ethanol is converted in the body. The body uses the NAD biochemical pathway to convert acetylaldehyde into acetate, which can be used as fuel.
- If the body can't convert ethanol into acetylaldehyde and acetate fast enough, acetylaldehyde will build up and cause more damage to cells.

Click here for the full transcript

Click here for the source